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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/775,033	02/09/2004	Lee Watts	60,130-1985;03MRA0135	6920
26096	7590	12/28/2005	EXAMINER	
CARLSON, GASKEY & OLDS, P.C. 400 WEST MAPLE ROAD SUITE 350 BIRMINGHAM, MI 48009			FOX, JOHN C	
			ART UNIT	PAPER NUMBER
			3753	

DATE MAILED: 12/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/775,033

Applicant(s)

WATTS ET AL.

Examiner

John Fox

Art Unit

3753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

This Office Action is responsive to the communication filed December 6, 2005.

The election of species requirement is withdrawn in view of applicant's admission on the record that the two embodiments listed are not patentably distinct.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 11, 13, and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Thauer, of record.

Note bearing sleeve 3, conical sealing face 9 on the valve shaft, conical face 10 of the bearing, washer 13, spring 11 and nut 5'. The upper face of washer 13 and the lower face of bearing 3 can be read as sealing faces since they are flat, abutting surfaces.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6 and 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thauer in view of Kipp et al.

Thauer teaches the claimed valve except uses a coil spring and a threaded in bearing sleeve. Kipp et al show a similar valve with a wave washer and a press fit

bearing. It would have been obvious for one of ordinary skill in the art at the time the invention was made to have used a wave spring instead of a coil spring in Thauer in view of the well known equivalence of the two springs, and to press fit the bearing sleeve instead of thread it in to secure the sleeve better.

Claims 7-10, 12, 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thauer.

The use of the recited materials to make the valve of Thauer is considered to be an obvious matter of engineering design in view of the well known nature of such materials and their industrial use. As to claim 12, the modification of Thauer to be an eccentric flap seating on two seats is obvious in view of applicant's admission that Figures 4-5 are not patentably distinct from Figure 3.


Claims 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thauer in view of Lee and Welty et al.

Thauer shows the claimed invention except for the coatings. Lee teaches a bearing with antifriction coatings comprising DLC to reduce friction between the mating surfaces of the bearing. Welty et al teach a valve with a DLC coating to reduce friction between sliding surfaces and includes two coatings 21, 23 of titanium nitride, for example, to support the DLC, which coatings are read as being ceramic materials. It would have been obvious for one of ordinary skill in the art at the time the invention was made to have used such plural coatings and DLC in the valve of Thauer to reduce friction between the bearing surfaces, in view of the teaching reference of Lee which shows the desirability of such coatings in bearings.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Fox whose telephone number is 571-272-4912. The examiner can normally be reached on Increased Flextime.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blau Stephen can be reached on 571-272-4406. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


John Fox
Primary Examiner
Art Unit 3753